

ABSTRACT

A robot system including a beacon provided with a transmitting part to transmit a light for location determination, and a mobile robot provided with a receiving part to receive the light. The robot system further includes a rotation driving part to rotate the transmitting part about a predetermined axis; an encoder to add phase information regarding how much the transmitting part is rotated by the rotation driving part with respect to a reference direction to the light; and a location determiner to determine a location of the mobile robot based on the phase information of the light received by the receiving part. Accordingly, a robot system is provided, which can precisely determine a location of a mobile robot regardless of external environmental conditions, distance, and reduction of cost by using a few transmitters.